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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,605	02/14/2006	Peter Legg	CE10327EP	4540

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EXAMINER	
SAFAIPOUR, BOBBAK	
ART UNIT	**PAPER NUMBER**
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,605	LEGG ET AL.	
	Examiner	Art Unit	
	Bobbak Safaipour	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-11,13 and 16-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-11,13 and 16-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 February 2006* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/14/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Preliminary Amendment

The present Office Action is based upon the original patent application filed on 2/14/2006 as modified by the preliminary amendment 2/14/2006. **Claims 1, 4-11, 13, and 16-21** are now pending in the present application.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement submitted on 2/14/2006 has been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-11, 13, and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by **Agin (United States Patent Application Publication #2004/0082301 A1).**

Consider **claim 1**, Akin discloses an outer loop power control method performed in a radio communications system, the method comprising:

determining that a plurality of different services are being communicated (paragraphs 11-14, 33);

performing a delay tolerance comparison with respect to the different services (paragraph 45-48, figure 2; The base station estimates the SIR periodically and compares it to the target SIRc. When an SIR is too low, it degrades the quality of service for the link concerned. If the estimated value of the SIR is less than the target value SIRc, the base station requests the station to increase its transmission power.);

selecting the service having the least delay tolerant service (paragraph 49; The function of the outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible quality of service); and

providing an inner loop power control performance target of the selected service in a manner dependent upon the delay tolerance comparison (paragraph 49; If the current quality of service is lower than the target quality of service associated with the service to be started, the outer loop increases the target value SIRc of the inner loop. If the estimated quality of service is higher than the target quality of service, the outer loop reduces the target value SIRc of the inner loop.).

Consider **claim 13**, Akin discloses an apparatus for performing an outer loop power control method in a radio communications system, comprising:

means for determining that a plurality of different services are being communicated (paragraphs 11-14, 33);

means for performing a delay tolerance comparison with respect to the different services (paragraph 45-48, figure 2; The base station estimates the SIR periodically and compares it to the target SIRc. When an SIR is too low, it degrades the quality of service for the link concerned. If the estimated value of the SIR is less than the target value SIRc, the base station requests the station to increase its transmission power.);

means for selecting the service having the least delay tolerant service (paragraph 49; The function of the outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible quality of service); and

means for providing an inner loop power control performance target in a manner dependent upon the delay tolerance comparison (paragraph 49; If the current quality of service is lower than the target quality of service associated with the service to be started, the outer loop increases the target value SIRc of the inner loop.).

Consider **claim 4**, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein selecting one of the services is also performed based upon a comparison of one or more quality of service characteristics or requirements of the services (paragraphs 48-50; The target value SIRc is selected as a function of the required quality service, and because this varies at each change of service, it is necessary to modify its value to adapt the transmission to the current type of service.).

Consider **claim 5**, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein selecting one of the services comprises receiving an input from a user or operator specifying the service (paragraph 42; The stations exchange data such as data of services of different types with the base station for updating information and for connecting to processing and service terminals.).

Consider **claim 6**, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein

periodically calculating, for each of the services, a separate change to the current inner power loop performance target (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

identifying the largest of the resulting respective current inner power loop performance target changes (paragraphs 18-19; Retaining the service having the largest difference.); and

changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided

(paragraph 47; If the estimated quality of service is higher than the target quality of service, the outer loop reduces the target value SIRc of the inner loop.).

Consider **claim** 7, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein

periodically calculating, for each of the services, a separate new inner loop power control performance target value (paragraphs 18-20, 27, 48; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator. The target value SIRc is selected as a function of the required quality of service which varies at each change of service.);

wherein performing a comparison with respect to the different services comprises comparing the resulting respective inner loop power control performance target values (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

identifying the highest inner loop power control performance target value from among the resulting respective inner loop power control performance target values (paragraphs 18-19; Retaining the service having the largest difference.); and

using the identified highest inner loop power control performance target value as the inner loop power control performance target being provided (paragraphs 18-19; Retaining the service having the largest difference.).

Consider **claim 8**, and **as applied to claim 7 above**, Akin discloses the claimed invention wherein

determining that one of the resulting respective inner loop power control performance target values differs from the resulting respective inner loop power control performance target value of one or more of the other services by more than a predetermined threshold for more than a predetermined time (paragraph 49; The function of an outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible power level.);

responsive thereto, adjusting rate matching parameters of one or more of the services to bring the differing respective inner loop power control performance target value closer to the resulting respective inner loop power control performance target values of the one or more other services (paragraph 49; The function of an outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible power level. To be more precise, its function is to compare, generally periodically, the current quality of service to the target quality of service which corresponds to the service to be initiated and to which it is "locked". If the current quality of service is lower than the target quality of service associated with the service to be started, the outer loop increases the target value SIRc of the inner loop. Otherwise, if the estimated quality of service is higher than the target quality of service, the outer loop reduces the target value SIRc of the inner loop.).

Consider **claim 9**, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein wherein the inner loop power control performance target also includes a signal to interference ratio, SIR, target (paragraphs 5 and 55; The power level is

generally set by an inner power control loop on the basis of a target value SIRc for the SIR.).

Consider **claim 10**, and **as applied to claim 1 above**, Akin discloses the claimed invention wherein the radio communication system is a cellular radio communications system. (paragraphs 1, 2, 11, 34, 35, and 41)

Consider **claim 11**, and **as applied to claim 10 above**, Akin discloses the claimed invention wherein the cellular radio communications system is a UMTS system. (paragraphs 1, 2, 11, 34, 35, and 41)

Consider **claim 16**, and **as applied to claim 13 above**, Akin discloses the claimed invention wherein the means for selecting one of the services also comprises means for basing the selection upon a comparison of one or more quality of service characteristics or requirements of the services. (paragraphs 48-50; The target value SIRc is selected as a function of the required quality service, and because this varies at each change of service, it is necessary to modify its value to adapt the transmission to the current type of service.).

Consider **claim 17**, and **as applied to claim 13 above**, Akin discloses the claimed invention wherein means for selecting one of the services comprises means for receiving an input from a user or operator specifying the service. (paragraph 42; The stations

exchange data such as data of services of different types with the base station for updating information and for connecting to processing and service terminals.)

Consider **claim 18**, and **as applied to claim 13 above**, Akin discloses the claimed invention wherein

means for periodically calculating, for each of the services, a separate change to the current inner power loop performance target (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

wherein the means for performing a comparison with respect to the different services comprises means for comparing the resulting respective current inner power loop performance target changes (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

means for identifying the largest of the resulting respective current inner power loop performance target changes (paragraphs 18-19; Retaining the service having the largest difference.); and

means for changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided (paragraph 47; If the estimated quality of service is higher than the target quality of service, the outer loop reduces the target value SIRc of the inner loop.).

Consider **claim 19**, and **as applied to claim 13 above**, Akin discloses the claimed invention wherein

means for periodically calculating, for each of the services, a separate new inner loop power control performance target value (paragraphs 18-20, 27, 48; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator. The target value SIRc is selected as a function of the required quality of service which varies at each change of service.);

wherein the means for performing a comparison with respect to the different services comprises means for comparing the resulting respective inner loop power control performance target values (paragraphs 18-20, 27; Relating to any type of inner loop power control wherein calculating the difference between its target value and quality indicator);

means for identifying the highest inner loop power control performance target value from among the resulting respective inner loop power control performance target values (paragraphs 18-19; Retaining the service having the largest difference.); and

means for using the identified highest inner loop power control performance target value as the inner loop power control performance target being provided (paragraphs 18-19; Retaining the service having the largest difference.).

Consider **claim 20**, and **as applied to claim 19 above**, Akin discloses the claimed invention wherein

means for determining that one of the resulting respective inner loop power control performance target values differs from the resulting respective inner loop power

control performance target value of one or more of the other services by more than a predetermined threshold for more than a predetermined time (paragraph 49; The function of an outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible power level.);

means for adjusting, responsive thereto, rate matching parameters of one or more of the services to bring the differing respective inner loop power control performance target value closer to the resulting respective inner loop power control performance target values of the one or more other services (paragraph 49; The function of an outer loop is to adjust the target value SIRc so that the required quality of service is achieved using the lowest possible power level. To be more precise, its function is to compare, generally periodically, the current quality of service to the target quality of service which corresponds to the service to be initiated and to which it is "locked". If the current quality of service is lower than the target quality of service associated with the service to be started, the outer loop increases the target value SIRc of the inner loop. Otherwise, if the estimated quality of service is higher than the target quality of service, the outer loop reduces the target value SIRc of the inner loop.).

Consider **claim 21**, and **as applied to claim 13 above**, Akin discloses the claimed invention wherein the inner loop power control performance target also includes a signal to interference ratio, SIR, target. (paragraphs 5 and 55; The power level is generally set by an inner power control loop on the basis of a target value SIRc for the SIR.)

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

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P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Bobbak Safaipour
B.S./bs

December 16, 2006

EDAN ORGAD
PATENT EXAMINER/TELECOMM.
12/19/06